

# Skill, dwelling, and the education of attention: Probing the constraints of second language academic writing

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*This paper endeavours to take stock of academic writing not merely as an activity that precedes publishing but as an art and a craft in its own right. We also draw attention to some of the conditions that affect writing in academia today, notably second language userhood in the production of text. In order to do that, we invoke the reasoning of British social anthropologist Tim Ingold, particularly his perspective on dwelling, skill, and the education of attention. From this emerges a view of academic writing as a practice founded in skill, developed through the dweller's practical involvement with his or her everyday tasks and influenced by different constraints. Because no one is born a skilled writer, attentive dwelling lies at the core of the writer's education of attention as a situated mode of perceptual engagement with the environments in which he or she dwells, be it through reading, co-authorship or textual response.*

*Keywords:* academic writing, dwelling, development, second language, skill

## 1 Introduction

In this conceptual paper, we explore the possibility of accounting for academic writing as an art of academic practice. Invoking the notion of “art”, we do not allude to aesthetics or artful features but hint rather to art in the sense of a craft or an activity that requires some specialised ability and that foregrounds training and experience as the way to attain it. To this end, we draw on the theoretical framework developed by the British anthropologist Tim Ingold and the concepts heralded therein, notably “skill”, “dwelling” and the “education of attention”. We use these concepts to probe the activities involved in academic writing and, in particular, the constraints of writing academically in a language other than the mother tongue.

Our interests, then, lie not so much on the instrumental outcome of academic writing, what is commonly spoken of in terms of “getting published”. While important, to publish entails, after all, having written a text. Whereas Latour (1987)

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is right in saying that the action of science is found “behind the technical texts” that scientists write (p. 63), Ingold (2000) is equally right in stressing that writing as such is laden with significance.

Because writing is a pivotal practice of academic life, academics should talk – and write – more about writing. On the premise that *Homo academicus* is, at once, *Homo scribens*, we ought to ponder not only the why-question, but also the what-and how-questions of writing, ultimately because of the relationship between this practice and one of its outcomes – text (Harris, 1986). To begin we may ask: why do we write? Answers to that question can be given with varying degrees of sophistication, realism and beauty, ranging from the blunt academic, “we write to produce publications”, to that expressed by Anaïs Nin, the French-American author, who in her diary sets the bar high:

We write to taste life twice, in the moment, and in retrospection. We write, like Proust, to render all of it eternal, and to persuade ourselves that it is eternal. We write to be able to transcend our life, to reach beyond it. We write to teach ourselves to speak with others, to record the journey into the labyrinth. (Nin, 1974, p. 149–150 [dated 1954]).

The academic labyrinth, to paraphrase Nin, is indeed founded on text. Text in turn requires the use of language, in the sense of a human capacity, as well as languages in the sense of large-scale, more or less demarcated and politically-infused social-historical formations (e.g., English, German or Swedish). While scholarship in applied linguistics and adjacent fields has contributed to a better understanding of the dynamics of writing and language matters (e.g., Blommaert 2008; Lillis 2013; see also Canagarajah, 2002; Lillis & Curry 2010 on academic writing more specifically), there is still room for further reflection, and remaining issues to resolve. For example, ample current issues pertain to writing in a language – English – that was, for many, acquired through schooling and later refined through a process of alignment with the demands of contemporary academic life. Correspondingly, the challenges faced by non-anglophone scientists make up a recurrent concern internationally (e.g., Elnathan, 2021; see also the career feature of *Nature*, “When English is not your mother tongue”, Woolston & Osório, 2019).

Because this issue has been subjected to intense debate in applied linguistics (e.g., Hyland 2016; Flowerdew, 2019; Politzer-Ahles et al. 2016; for reflections on that debate, see Hultgren 2020; Soler 2021), we want to make clear from the start that our motive is not to side with camps or engage in polemics. Rather, we seek to explore constructively the ways in which drawing on the rich theoretical framework of Ingold may render certain objects, fault lines and features of that debate to appear in a novel light. To our knowledge, moreover, Ingold’s work has not been comprehensively introduced to the language sciences. We nevertheless believe that his theories can cast new light on a range of questions of relevance to the field of applied linguistics and beyond. Ingold has, over the course of many decades, engaged in scholarly debates on human ecology, philosophy, biology, sociology, anthropology and psychology. While straddling disciplinary fields, his work is grounded in real-life engagement and every-day observation, designed to unpack objects that seem mundane at first. Writing is a case in point. As a non-linguist, then, his framework can contribute to linguistic debates precisely by approaching similar concerns but with another set of premises. Ingold’s work,

notably, does not deal specifically with linguistic knowledge, or, for that matter, academic writing. This fact, as we see it, is in itself a benefit, ultimately because it prods us to tone down the distinction, exclusiveness or specificity of linguistic ability in the process of writing. As we will argue, the abilities required for accomplished academic writing share fundamental features with abilities required for other tasks. Having said that, the skill of writing – and the abilities this involves – is not identical to that of speaking; hence, as we will posit, the writer is not the speaker. The consequences of this statement will be elaborated throughout this paper.

The paper is structured as follows. We begin by commenting briefly on the historical interrelations between text, writing and languages. By way of approaching academic writing, we then introduce Ingold's intellectual agenda followed by an exposition of two of his key concepts, skill and dwelling. Together, as we proceed to argue, they provide us with a useful prism through which to view "the education of attention" as linked to questions of development and constraints on learning. In the final concluding remarks, we detail how this heuristic contributes to a comprehensive perspective on the constraints of second language academic writing.

## 2 Scholarly text and the academic writer

Since the inception of the scientific revolution, text has served as the prime carrying medium for scholarly communication. It has never dominated completely and, to this day, a range of media – film, arts, oral lectures, and so forth – are also utilised in the production, exchange, dissemination, reception, and circulation of academic knowledge. This notwithstanding, the hegemony of text prevails. Texts enable scholarly ideas to travel lightly, bestowing the objects of knowledge with "the properties of being mobile but also immutable, presentable, readable and combinable with one another" (Latour, 1986, p. 7). Moreover, it would seem that the prevalence of text is bolstered through the adoption of manifold socio-technical regimes, ranging from the invention of the print press to the industrialisation of the academic enterprise of our times. The latter regime, ultimately, is what prods us to organise training workshops on the art of "getting published", aimed for newcomers at the scientific game.

For a long time, scholarly writing abided in a realm disjointed from the mundane spoken tongue. In China, for example, writing up until the 20th century was conducted in the purely written medium of Classical Chinese (*wenyan*). This form, which had remained virtually unchanged for well over two millennia, did not correspond to any spoken contemporary tongue. In fact, the terse style was virtually unintelligible if read aloud to an uninformed listener (Chao, 2006 [1916]). Nevertheless, it remained an unsurpassed means for elaborate writing – so much so that early Western interpreters lauded the Chinese tradition as a unique tradition of visual poetry (Fenollosa, 1936). The *wenyan* tradition was discontinued during the first decades of the 20th century and all writing was henceforth conducted in the contemporary spoken Mandarin vernacular.

Across feudal Europe, similarly, Latin dominated as a scholarly lingua franca from the Middle Ages and onwards as the primary vehicle for the written dissemination of scholarly thoughts. This situation was gradually surpassed by a nationalising period of European plurilingualism, consisting mostly of French,

German and English (Gordin, 2015). After World War I, as Ammon (2012) shows, commenced the period of academic “post-nationalism”. In the wake of this process, English gained traction, and while perturbing differently across scientific fields, the viability of using this language has since remained undisputed (Salö, 2017). Concomitantly through this process – aptly termed “the denationalization of science” (Crawford et al., 1993) – English has not only secured market shares in academia but has emerged globally as a go-to language across many tiers of society (e.g., Park & Wee, 2012).

When writing for publication became connected to a distinct vernacular, however, the question of academic writing was tangled up with the issue of mother tongue proficiency. Gradually, the view emerged that scholarly writing would somehow be constrained by the ability to speak the language. Phrased differently, while Latin was no one’s mother tongue (see below), English undoubtedly is, a fact that purportedly creates a disadvantage for first-language speakers of other languages. This issue remains unsolved to this day. In Sweden, for example, long-standing Permanent Secretary of the Swedish Academy, Horace Engdahl, is known to have compared the use of English for academic purposes to wrestling with one hand tied behind one’s back (Isaksson, 2006). For Engdahl, the use of English is a negative constraint akin to a handicap, allowing one to say what one is able to say but not what one wants to say. As he puts it: “My own language is the daylight in which matters appear. Foreign languages are like little torches with which one gropes in tunnels” (our translation). The rhetorical question is thus: Are non-native speakers really proficient enough to engage with science through the vehicle of English? In the same vein, the Swedish cartoon creator Jan Bergelin once produced a widely circulating comic piece portraying a staircase with various characters standing on different steps. Halfway up stands the scholar whose doctoral thesis was written in English. Two steps above stands the “the average-educated twelve year old English school girl”. The subtext: while greatly overrating their mastery of English, Swedish scholars are outranked by native speakers, even children (Bergelin 2006).

Such accounts, as elaborated below, rely on a notion of competence that equates “the speaker” with “the writer”. They subsequently conflate native speakerhood with the ability to produce written scientific discourse. While spoken language and academic writing do interact (e.g., Salö & Hanell, 2014), defining their cross-modal relationships remains complex. We must thus be careful to elaborate how the juncture between the two can be understood. In order to present an alternative account, we first approach text and writing through the prism of Ingold’s theoretical endeavour. In particular, as we hold, a view that encapsulates the conceptual triad of skill, dwelling and the education of attention brings a number of new possibilities for understanding academic writing, the academic dweller and the text-based environments he or she inhabits.

### 3 Skill, dwelling and the education of attention

In *Lines*, Ingold (2016) takes stock of the fact that “text” etymologically involves a meshwork of interwoven threads; hence, ‘texere’ in Latin means ‘to weave’, from which words such as textile derive (p. 63). Fundamentally, Ingold argues, the act of writing is a handicraft, “the art of scribes” (Ingold, 2016, p. 27) and texts, accordingly, are “woven rather than made” (Ingold, 2000, p. 403). Understood as

such, Ingold accordingly seeks to reposition writing as an activity akin to crafts such as embroidery and weaving, so as to foreground bodily practices that involve the use of lines and surfaces. The academic writer is also engaged in the craft of adding traces to the lines of a page, be it a sheet or on a screen.

However, for Ingold writing is not merely an act of inscription unfolding as the writer confronts the blank paper sheet or computer screen. Such a view conjures up the image of writing as the end-point of a mental process during which the message is formulated and planned in advance only to be dressed in ink (or pixels) during the act of writing. Such a view, moreover, would leave us with a depiction of the written text as merely the outward expression of the linguistic competence of the writer. Ingold rejects this account. For him, notions such as “capacity” and “competence” invoke a view of knowledge as detached from action – as a property to be equipped with what can therefore be executed mechanically in performance. The problem with both of these concepts is that they allude to a view of the mind as a repository or a container from which representations can be drawn and concatenated to produce the final text (Ingold 2001a).

On the contrary, writing, as Ingold expounds in *The Perception of the Environment* (2000), is a practice grounded in *skill*. The concept of skill might at first glance appear as neither novel nor fully apt. Firstly, the concept has long lingered in applied linguistics debates on academic writing as a way to denote a clearly demarcated ability (e.g., Hyland 2016). Secondly, in many fields skill is often used in a derogatory sense – the “poor relation of knowledge” (Ingold, 2018, p. 159) – as automatic, mindless movement, attained through imitation or habit, or as tacit, embodied knowledge that cannot easily be explicated or taught. Despite such reservations, the concept of skill is deeply entrenched and theoretically developed throughout Ingold’s oeuvre. In the sense used therein, skill refers not only to knowledge as expressed through doing, but also to its mode of becoming, developmentally instilled in practitioners through dwelling, attentive education, and experience. Moreover, while skill may indeed be embodied, in the perspective outlined here it carries none of the negative connotations at times attributed to the term. Instead, rather than being void of thought, skill may in fact be the very bedrock on which rational faculties reside.

To develop his perspective on skill, Ingold adopts the notion of *dwelling* as an intrinsic mode of a being-in-the-world, founded on perceptual involvement with the surroundings (see especially Ingold 2000, part 3). Following Heidegger, Ingold seeks to challenge dichotomies such as nature versus culture, body versus mind, or human beings versus the material environment, more broadly. The dwelling perspective contrarily advances the view that people do not just live *in* the world but *with* the world, and that the world is a part of people just as much as the other way around. What people create or imagine, as Ingold puts it, “arise[s] within the current of their involved activity, in the specific relational contexts of their practical engagement with their surroundings” (Ingold, 2000, p. 186). Because such surroundings, or environments, are furnished by the work of precursors, successors “come literally to carry the forms of their dwelling in their bodies – in specific skills, sensibilities and dispositions” (Ingold, 2000, p. 186). Situated at the heart of Ingold’s account, human capacities, thus including the specialized skills of scientists, are built up in tandem with their environment-specific engagement:

Simply to exist as sentient beings, people must already be situated in a certain environment and committed to the relationships this entails. These relationships, and the sensibilities built up in the course of their unfolding, underwrite our capacities of judgment and skills of discrimination, and scientists – who are human too – depend on these capacities and skills as much as do the rest of us. (Ingold, 2000, p. 25)

In contrast to the competence notion, where ability is considered a property of the individual itself, skill is thus always relative to the context in which it develops (Clark, 1997, p. 385). “Skills”, holds Ingold (2000, p. 5), “are not transmitted from generation to generation but are regrown in each, incorporated into the modus operandi of the developing human organism through training and experience in the performance of particular tasks.” As such, skills are not mental representations, but neither are they embodied, practical or tacit knowhow (Ingold, 2018). It renders Cartesian dualism obsolete. Neither foremost innate, nor socially constructed, skills are at once biologically and culturally attained, incorporated through practice and training in the particular environment where the gradually enskilled person dwells (Ingold, 2000, 2001b).

How then does skill come to be? To engage with this question, it is vital to grasp that skills, such as the accomplished performance of a written register, are not given from the start but grow through the dweller’s involvement with the environment he or she is confronted with. In other words, no one is born a writer, and no one naturally becomes a skilled one. Accordingly, we ought to ask how skills in academic writing are developed. Ingold’s answer would be through the *education of attention*.

Advancing this view, Ingold draws on the work of Gibson (1979), whose “ecological approach” to psychology proposes a view of perception as a process of learning to attend. In this view, things in the world are not perceived through the mental structuring of degraded sensory input, as is commonly assumed in modern cognitive science. Rather, the entire sensory system is in itself a perceptual mechanism as it allows the individual to directly attend to organism-relevant structure in, say, light or sound that is already present in the world. Skill learning involves aligning one’s present abilities with the environment so as to be able to use potentialities for action that resides therein. Educating attention, for Gibson, thus involves “the exploratory activity of looking around, getting around, and looking at things” (1979, p. 139). Learning to attend in this sense means being able to act skilfully in a novel setting.

Acquiring the skill to write academically is thus enmeshed in a broader process of experience through socialisation. It is part of the process that Bachelard (2002) referred to as the formation of the scientific mind, or, the formation of what Bourdieu termed habitus – the durable dispositions of socialisation that incline agents to think, feel and act in particular ways, but that are nonetheless “subjected to experience, and by the same token transformed by these experiences” (Bourdieu & Chartier, 2015, p. 57). Essentially, then, Ingold aligns with Bourdieu in conceptualising experience not as cultural knowledge imported by the mind but generated through people’s practical involvement with the world they inhabit (Ingold, 2000, p. 162). Unlike Bourdieu, however, he does so by emphasising the developmental aspects of skill acquisition inherent in the dwelling perspective (Ingold, 2001b, see below).

Academic writing duly exemplifies such skill development. The academic environment comprises an ensemble of technical and social features and activities, enacted by more or less skilled dwellers in a given environment (Ingold, 1993). Through dwelling, the novice writer receives a chance to engage attentively with these features, and this forms the backbone of a process of enskilment (Ingold, 2001a). For example, reading the work of others is to attend to the register and style of writing that hold sway in one's academic discipline. Doing so attentively provides an opportunity to calibrate one's voice and imitate register-specific traits. Engaging in the fundamental academic activity of reading is thus also a way to engulf oneself in the stylistic requirements of the field so as to align one's skills with it. Relatedly, co-authoring presents itself as a vital opportunity to engage in writing – the flip side of reading – in the company of already skilled practitioners. Such co-engagement with writing aptly pinpoints that the writer is not merely “a user” of pre-produced forms but actively engaged in the process of their production (Ingold, 2001a, p. 144). Professional language editing, finally, holds the potential of receiving formative response – particularly if one remains attentive in the process of fine-tuning one's own text. This means resisting the temptation to simply accept changes but rather observe why they were proposed.

Reading, co-authorship and textual response are but three activities that embody the type of skill acquisition through dwelling that is discussed here. Through all such forms of practical engagement with the environment, the academic novice's education of attention involves a blend of imitation and improvisation as part and parcel of “the situated and attentive engagement that is fundamental to becoming a skilled practitioner” (Ingold, 2001a, p. 141).

#### **4 Constraints and the second language academic writer**

What, then, are the entailments of the view presented thus far to questions relating to second language userhood? Given the prevalence of English in modern academic publishing, do English native speakers hold an advantage over non-native speakers in academic writing and, by extension, academic publishing and career opportunities? Or, is academic English the “first language of none”, meaning that native speakers of English hold no privilege in scientific production? Such questions have attracted much attention in the socially-infused language sciences (e.g., Ammon 2012; Canagarajah, 2002; Lillis & Curry, 2010; O'Neil, 2018) and have recently become the issue of strong contention in the field of applied linguistics (see Hyland, 2016 and Politzer-Ahles et al., 2016).

At the core of the advantage debate are questions about the extent to which forms of specialised knowledgeability – such as locally valued academic genres and registers – depend on having English as the first-language or mother tongue. The counterclaim to this assertion gathers support from the oft-quoted remark that academic language “is no one's mother tongue” (Bourdieu and Passeron 1994, 8 [1965, 18]). To invoke this remark to argue against the native speaker privilege in scholarship today is, however, a misrepresentation of what Bourdieu and his colleagues sought to argue and empirically demonstrate in the mid-1960s. Ironically, they argued that dominant understandings of the learned language of academic and scientific traditions effectively serve to consecrate cultural and linguistic privilege. Their work around that time (e.g., Bourdieu & Passeron 1979 [1964], 1994 [1965]) dealt with university students' efforts to acquire university

culture, focusing on the efficacy of their assets to achieve such ends. It showed essentially that the prime indicator for their prospects of achieving this successfully was their parents' level of education, later seeking to theorise the interlinkages between cultural capital and educationally profitable linguistic capital (Bourdieu and Passeron 1977 [1970]). It is here rendered clear that the gist of the no-one's-mother-tongue statement is that "university French" is "unequally removed from the languages actually spoken by the different social classes", with the bourgeois language being closer to scholarly language (Bourdieu and Passeron 1977, 115, our emphasis). Hence, while never having been anyone's mother tongue, it is, in their view, closer to some's mother tongues than others'. At the same time, it is but one form of capital in a complex exchange that involves many other forms of capital. Here, matters of language – not only English – linger in struggles over legitimate membership that inevitably unfold (Salö et al., 2022).

Academic writing is similarly unequally removed from the native language status of the writer but is nevertheless also merely one component in a complex network of influences. Here, the perspective outlined so far of skill, dwelling and education of attention can cast new light on the first-language-of-none question and the question of second language writing more generally. As we have argued previously, while English may have become the academic language *par excellence*, the writer is not the speaker. While the differences between a native and a second language speaker may be explained in terms of proficiency, differences between writers comprises that between a skilled and novice practitioner (cf. Hyland, 2016, p. 62). The notion of education of attention reminds us that skills are learnt, not possessed. Moreover, the development of skill is not unbounded. Rather, it is influenced by *constraints* of various sorts (Hinde, 1973). A constraint here is not used in a pejorative sense as a limitation on a clearly circumscribed ability but is used to denote an aspect of the individual that shapes the way an action can be learned and performed. For instance, the emergence of a specific ability of phonemic decoding in the human infant depends on prenatal experience that shapes the auditory system to be selectively sensitive to human speech (Vouloumanos & Werker, 2007). The origin of this ability thus stems from how the auditory system functions and develops (Werker & Hensch, 2015). There is ample support for this view from the study of human and animal development from different theoretical and methodological perspectives (ethology: Hinde & Stevenson-Hinde, 1971; nativist linguistics: Gleitman & Newport, 1995; connectionism: Elman et al., 1996), and it aligns with a view in biology and psychology where early developed abilities provide the foundation for later development, and, conversely where later, more advanced abilities, depend on, or are constrained by, earlier developmental stages for their emergence (variously referred to as epigenesis, Waddington, 1957; Gottlieb, 2007; an ontogenetic view, Kuo, 1967; or a developmental systems view, Oyama, 2000; for a related discussion on language development, see Lenneberg, 1969, 1975; Norrman, 2020).

Developmental origin, furthermore, does not constrain a skill in an absolute sense. Contrary to the perennial debate in linguistics regarding the effect of age on language learning, where later learning is thought to mark an inability to attain natively like proficiency due to changes in competence, the notion of skill carries no such connotations. Skill, in fact, entails the flexible adjustment and execution of actions under variable conditions (Ingold, 2000, 2001b, 2018; see also Rubin, 1988). Developmental history nevertheless provides individual variability that must be incorporated during skill attainment. This can be observed, for instance, in cases



where early experience with a specific phonological system shapes the way new phonological contrasts are learned and processed in the brain later in life even though the first language is no longer in use (such as in the case of international adoptees; Norrman, Bylund, & Thierry, 2021). The early setting of a specific phonemic decoding ability does not make learning impossible, however; nevertheless, it influences the way novel linguistic materials are attended during the continuous process of language development.

The notion of education of attention combined with the developmental perspective described above thus provides a powerful tool for elaborating how the skills of a second language academic writer are attained and constrained: it is at once a general process of learning and a highly specialised one as it belongs to a particular individual in a particular context, and emerges through prolonged dwelling, training or other forms of socialising experience. Human agents, through their education of attention and practices of dwelling, grow into becoming enskilled to perform locally valued linguistic practices. Just as the demands and constraints facing writing and speaking differ, development in a first and a second language are each subject to unique individual constraints. In this light, the difficulties associated with expression in the highly specialised repertoire of English-language academic writing that second language speakers are faced with can only partly be explained by non-nativeness as such. Second language speakerhood ought instead to be understood as one constraint among many within the multifaceted process of becoming a skilled academic writer. This is why, when it comes to writing in a specific register, a skilled second language writer may at times be more proficient than a novice native writer. What matters is to understand how varying constraints are incorporated or overcome, and how skilled practice is attained through the education of attention. Assumptions about competence undergirding the typical view of the speaker ought thus not be imported into the discussion on second language writer constraints. Skills, however, ought to linger saliently in that debate.

## 5 Final remarks

As we hope to have shown here, the work of Tim Ingold – particularly the conceptual triad of skill, dwelling and the education of attention – offers a useful heuristic through which a novel understanding of academic writing can be obtained. While Anaïs Nin’s writing aspirations to “reach beyond life” might come across as high-flown to contemporary academics, her urge “to teach ourselves to speak with others” gels with the understanding we have presented here. To teach ourselves is to learn to attend – to enter into the situated mode of practical and perceptual engagement that we have here referred to as “the education of attention”. In precisely this vein, writing skills are attentively learned and honed through engagement with the environments in which the academic writer dwells. This process may unfold through reading the texts of already skilled writers, writing together with skilled colleagues or relating attentively to formative feedback on one’s writing. There are also, in dwelling, a myriad of other everyday activities of attentive pickup. Situated at the crossroads of imitation and improvisation, they are all about dwellers’ involvement with the environment, founded in their ways of perceiving, touching, and getting around.

Such insights lie at the heart of Ingold's account, the value of which consists in its cross-disciplinary yet firm engagement with topics and tools of relevance to applied linguistics and beyond. Accordingly, harking back to his reasoning, writing, including academic writing, is an art of practice. The knowledge required to perform it is founded in skill, built up through dwelling. Skills grow "through a process of development, in the course of novices' practical involvement with the constituents of their environment – under the guidance of more experienced mentors – in the conduct of their everyday tasks" (Ingold, 2000, p. 37).

As with any process of development, attaining skill is shaped by constraints. Such constraints, however, are not to be regarded merely as limitations to the possibility of becoming a skilled practitioner in a novel field, but as an inherent part of skill development in the first place. Advanced perceptual abilities thus build on previous stages of development and they are, by the same token, the result of previous abilities that constrain and thereby enable more specialised information pickup. Because academic writing is founded in skill, not competence, second language userhood is a constraint among many that the novice practitioner faces. The arguments presented here, however, should not be read as an attempt to downplay the challenges involved in learning to think scientifically while, at the same time, expanding one's repertoire and honing the skill of academic writing in English. Nevertheless, by taking into consideration the activities and constraints that actively shape the skills of academic writing, we can attain a more nuanced picture of the affiliation of factors that affect researchers' chances to work productively in academia today. For second language writers to acknowledge these constraints does not entail being curtailed by them. Instead, just as with development in general, when it comes to second language academic writing we ought to think in terms of productive constraints, not innate and therefore determinate constraints. Or, as Igor Stravinsky puts it in *Poetics of Music*:

The more constraints one imposes, the more one frees one's self of the chains that shackle the spirit [...] and the arbitrariness of the constraint serves only to obtain precision of execution. (1947, p. 65).

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